

In re of Appl. No. 09/893,005

REMARKS

The Office Action and the cited and applied reference have been carefully reviewed. No claim is allowed. Claims 11-16, and 18-21 presently appear in this application, with claim 31 being newly added in place of canceled claim 17, and define patentable subject matter warranting their allowance. Reconsideration and allowance are hereby respectfully solicited.

Claims 11-21 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. This rejection is obviated by the amendments to the claims.

In amended claim 11, support for the new recitations are found on page 20, first full paragraph, and the Examples (grown-up), page 4, lines 6-14 (cytokine), page 9, line 2 (calli), and page 12, first full paragraph (0.1 ng to one milligram per one kilogram by fresh weight of the grown up plant). In amended claims 14, 15 and 31, the recitations of "the transgenic plant is ingested by a mammal belonging to the same family of the mammalian source used" and "can be ingested by... without cooking or heating" are supported by the specification at page 4, first full paragraph, and at page 13, respectively.

Reconsideration and withdrawal of this rejection are therefore respectfully requested.

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Claim 13 has been rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is obviated by the deletion of the recitation held by the examiner to be unsupported in the specification. However, it should be pointed out that the Goodman et al. U.S. Patent 4,956,282, relied upon by the examiner below as prior art listed examples of well known "growth factors" at column 3, lines 24-27. Accordingly, the term "growth" is well recognized and understood in the art.

Claims 11-21 remain rejected under 35 U.S.C. §102(b) as being anticipated by Goodman et al. (U.S. Patent No. 4,956,282 for reasons of record. This rejection is respectfully traversed.

The present claims recite a "grown-up" (mature) transgenic plant containing a cytokine in an amount of 0.1 ng to one milligram per one kilogram by fresh weight of the grown-up plant, which is fully supported in the specification as discussed above. It is clear from a reading of the cited and applied Goodman reference that there is simply no disclosure or teaching in Goodman of a "grown-up" or mature plant or of a plant containing 0.1 ng/kg to 1 mg/kg fresh

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weight of the grown-up plant. Accordingly, Goodman cannot anticipate the amended claims.

Furthermore, the recitation of the grown-up transgenic plant being ingested by humans or mammals in amended claim 11 is certainly not in the preamble and should therefore be given patentable weight.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

In view of the above, the claims comply with 35 U.S.C. §112 and define patentable subject matter warranting their allowance. Favorable consideration and early allowance are earnestly urged.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 11-16, 18, 20, and 21 have been amended as follows:

11(Amended). A grown-up transgenic plant which is ~~obtainable~~obtained by (i) introducing a DNA sequence encoding a ~~physiologically active protein~~cytokine of a human or mammalian source into a plant protoplast, plant cell, plant tissue, calli, or a plant-body; (ii) growing or regenerating the transformed plant protoplast, plant cell, ~~or plant tissue~~, calli, or plant into a grown-up transgenic plant-body while allowing expression of said DNA ~~sequence~~ within the grown-up transgenic plant-body to form said cytokine in an amount of 0.1 ng to one milligram per one kilogram by fresh weight of the grown-up plant that is effective when taken orally to prevent and/or treat humans or mammals ~~suffering from diseases which can be prevented and/or treated with~~ susceptible to said physiologically active protein cytokine when the grown-up transgenic plant is ingested by said humans or said mammals; and (iii) harvesting the grown-up transgenic plant-body, ~~said physiologically active protein being present endogenously in humans or mammals and being a substance responsible for the maintenance or the modulation of physiological functions in said humans or mammals.~~

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12 (Amended). The grown-up transgenic plant of claim 11, wherein said ~~physiologically active protein~~cytokine is one or more human or mammalian cytokines.

13 (Amended). The grown-up transgenic plant of claim 12, wherein the one or more human or mammalian cytokines are selected from the group consisting of interferons, interleukins, hematopoietic factors, and growth factors, ~~wherein said growth factors include nerve growth factor, epidermal growth factor, platelet derived growth factor, transforming growth factor α , growth factor β , growth hormone, insulin and steroids.~~

14 (Amended). The grown-up transgenic plant of claim 11, wherein the mammalian source is bovine, porcine, mouse, or rat with the proviso that the transgenic plant is ingested by a mammal belonging to the same family as the mammalian source used.

15 (Amended). The grown-up transgenic plant of claim 11, which ~~is edible~~can be ingested by humans without cooking or heating.

16 (Amended). The grown-up transgenic plant of claim 11, wherein said plant ~~body~~ is a plant of a family selected from the group consisting of Solanaceae, Apiaceae, Asteraceae, Brassicaceae, Cucurbitaceae, Rosaceae, Vitaceae, Ericaceae, Caricaceae, Fabaceae, Juglandaceae, and Chenopodiaceae.

18 (Amended). An isolated tissue of the grown-up transgenic plant of claim 11, which is selected from the group

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consisting of leaf, stem, root, fruit, peel, bud, petal, and a combination thereof.

20 (Amended). A ~~processed form of~~food composition comprising the grown-up transgenic plant of claim 11 and an edible material, ~~which results from wherein~~ the grown-up transgenic plant of claim 11 ~~being subjected to a process comprising one or more steps of cutting~~ is in a cut, ~~peeling~~peeled, ~~pulverizing~~pulverized, ~~squeezing~~squeezed, or ~~extracting~~extracted form.

21 (Amended). The ~~processed form~~food composition of claim 20, ~~to which~~ further contains ~~trehalose has been added~~.